

Attorney Docket No. 233-593-USP

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims**

1 (original): An apparatus for converting data signals, comprising:

an input operable to:

receive a plurality of data signals from a first interface converter paddle associated with a first communication protocol; and

receive a plurality of data signals from a second interface converter paddle associated with a second communication protocol; and

a serdes coupled to the input and operable to:

determine whether a coupled interface converter paddle coupled to the serdes comprises the first interface converter paddle or the second interface converter paddle;

identify the communication protocol associated with the coupled interface converter paddle;

receive a plurality of data signals from the coupled interface converter paddle, the data signals being serialized; and

deserialize the data signals according to the identified communication protocol.

2 (original): The apparatus of Claim 1, wherein the serdes is operable to:

receive a plurality of outgoing data signals from a line card; and

serialize the outgoing data signals according to the identified communication protocol.

3 (original): The apparatus of Claim 1, wherein the coupled interface converter paddle comprises a transceiver operable to:

transform the data signals from an optical form to an electrical form;

transmit the data signals to the serdes;

receive a plurality of outgoing data signals from the serdes; and

transform the outgoing data signals from an electrical form to an optical form.

Attorney Docket No. 233-593-USP

4 (original): The apparatus of Claim 1, wherein the coupled interface converter paddle comprises a transceiver operable to:  
 transmit the data signals to the serdes, the data signals comprising a plurality of electrical signals; and  
 receive a plurality of outgoing data signals from the serdes, the outgoing data signals comprising a plurality of electrical signals.

5 (currently amended): ~~The apparatus of Claim 1.~~ An apparatus for converting data signals, comprising:

an input operable to:  
receive a plurality of data signals from a first interface converter paddle associated with a first communication protocol; and  
receive a plurality of data signals from a second interface converter paddle associated with a second communication protocol; and  
a serdes coupled to the input and operable to:  
determine whether a coupled interface converter paddle coupled to the serdes comprises the first interface converter paddle or the second interface converter paddle; wherein the coupled interface converter paddle comprises a high speed coupler operable to be hot-plugged to the serdes[.];  
identify the communication protocol associated with the coupled interface converter paddle;  
receive a plurality of data signals from the coupled interface converter paddle, the data signals being serialized; and  
deserialize the data signals according to the identified communication protocol.

6 (original): The apparatus of Claim 1, wherein the serdes is operable to adjust a speed of the data signals to a generic speed.

7 (original): The apparatus of Claim 1, further comprising a board surface controller coupled to the serdes and operable to:  
 determine the identified communication protocol; and  
 instruct the serdes to process the data signals according to the identified communication protocol.

Attorney Docket No. 233-593-USP

8 (original): The apparatus of Claim 1, further comprising a status indicator operable to indicate a status of the data signals.

9 (original): The apparatus of Claim 1, wherein the serdes is operable to transmit the data signals to a line card, the serdes disposed outwardly from the line card.

10 (original): A system for converting data signals, comprising:

- a first interface converter paddle associated with a first communication protocol;

- a second interface converter paddle associated with a second communication protocol; and

- a physical layer card operable to:

- determine whether a coupled interface converter paddle coupled to the physical layer card comprises the first interface converter paddle or the second interface converter paddle;

- identify the communication protocol associated with the coupled interface converter paddle;

- receive a plurality of data signals from the coupled interface converter paddle, the data signals being serialized; and

- deserialize the data signals according to the identified communication protocol.

11 (original): The system of Claim 10, wherein the physical layer card is operable to:

- receive a plurality of outgoing data signals from a line card; and

- serialize the outgoing data signals according to the identified communication protocol.

12 (original): The system of Claim 10, wherein the coupled interface converter paddle comprises a transceiver operable to:

- transform the data signals from an optical form to an electrical form;

- transmit the data signals to the physical layer card;

- receive a plurality of outgoing data signals from the physical layer card; and

- transform the outgoing data signals from an electrical form to an optical form.

13 (original): The system of Claim 10, wherein the coupled interface converter paddle comprises a transceiver operable to:

Attorney Docket No. 233-593-USP

transmit the data signals to the serdes, the data signals comprising a plurality of electrical signals; and

receive a plurality of outgoing data signals from the serdes, the outgoing data signals comprising a plurality of electrical signals.

14 (currently amended): ~~The system of Claim 10,~~ A system for converting data signals, comprising:

a first interface converter paddle associated with a first communication protocol;

a second interface converter paddle associated with a second communication protocol; and

a physical layer card operable to:

determine whether a coupled interface converter paddle coupled to the physical layer card comprises the first interface converter paddle of the second interface converter paddle; wherein the coupled interface converter paddle comprises a high speed coupler operable to be hot-plugged to the serdes[.];

identify the communication protocol associated with the coupled interface converter paddle;

receive a plurality of data signals from the coupled interface converter paddle, the data signals being serialized; and

deserialize the data signals according to the identified communication protocol.

15 (original): The system of Claim 10, wherein the physical layer card is operable to adjust a speed of the data signals to a generic speed.

16 (original): The system of Claim 10, further comprising a line card comprising a board surface controller operable to:

determine the identified communication protocol; and

instruct the physical layer card to process the data signals according to the identified communication protocol.

17 (original): The system of Claim 10, further comprising a status indicator operable to indicate a status of the data signals.

18 (original): The system of Claim 10, wherein the physical layer card is operable to transmit the data signals to a line card, the physical layer card disposed outwardly from the line card.

Attorney Docket No. 233-593-USP

19 (Original): A method for converting data signals, comprising:

determining whether a coupled interface converter paddle coupled to a serdes comprises a first interface converter paddle or a second interface converter paddle, the first interface converter paddle associated with a first communication protocol, the second interface converter paddle associated with a second communication protocol;

identifying the communication protocol associated with the coupled interface converter paddle;

receiving a plurality of data signals from the coupled interface converter paddle; and  
deserializing the data signals according to the identified communication protocol.

20 (original): The method of Claim 19, further comprising:

receiving a plurality of outgoing data signals from a line card; and  
serializing the outgoing data signals according to the identified communication protocol.

21 (original): The method of Claim 19, further comprising:

transforming the data signals from an optical form to an electrical form;  
transmitting the data signals to the serdes;  
receiving a plurality of outgoing data signals from the serdes; and  
transforming the outgoing data signals from an electrical form to an optical form.

22 (original): The method of Claim 19, further comprising:

transmitting the data signals to the serdes, the data signals comprising a plurality of electrical signals; and  
receiving a plurality of outgoing data signals from the serdes, the outgoing data signals comprising a plurality of electrical signals.

23 (currently amended): ~~The method of Claim 19, A method for converting data signals, comprising:~~

~~determining whether a coupled interface converter paddle coupled to a serdes comprises a first interface converter paddle or a second interface converter paddle, the first interface converter paddle associated with a first communication protocol, the second interface converter paddle associated with a second communication protocol;~~

~~further comprising hot-plugging a high speed coupler of the coupled interface converter paddle to the serdes[.];~~

Attorney Docket No. 233-593-USP

identifying the communication protocol associated with the coupled interface converter paddle;  
receiving a plurality of data signals from the coupled interface converter paddle; and  
deserializing the data signals according to the identified communication protocol.

24 (original): The method of Claim 19, further comprising adjusting a speed of the data signals to a generic speed.

25 (original): The method of Claim 19, further comprising:  
 determining the identified communication protocol using a board surface controller;  
 and  
 transmitting an instruction from the board surface controller to the serdes to process the data signals according to the identified communication protocol.

26 (original): The method of Claim 19, further comprising indicating a status of the data signals.

27 (original): The method of Claim 19, further comprising transmitting the data signals to a line card, the serdes disposed outwardly from the line card.

28 (original): Logic for converting data signals, the logic embodied in a computer-readable medium and operable to:

determine whether a coupled interface converter paddle coupled to a serdes comprises a first interface converter paddle or a second interface converter paddle, the first interface converter paddle associated with a first communication protocol, the second interface converter paddle associated with a second communication protocol;

identify the communication protocol associated with the coupled interface converter paddle;

receive a plurality of data signals from the coupled interface converter paddle; and  
 deserialize the data signals according to the identified communication protocol.

29 (original): The logic of Claim 28, wherein the logic is further operable to:

receive a plurality of outgoing data signals from a line card; and  
 serialize the outgoing data signals according to the identified communication protocol.

Attorney Docket No. 233-593-USP

30 (original): The logic of Claim 28, wherein the logic is further operable to:  
 transform the data signals from an optical form to an electrical form;  
 transmit the data signals to the serdes;  
 receive a plurality of outgoing data signals from the serdes; and  
 transform the outgoing data signals from an electrical form to an optical form.

31 (original): The logic of Claim 28, wherein the logic is further operable to:  
 transmit the data signals to the serdes, the data signals comprising a plurality of  
 electrical signals; and  
 receive a plurality of outgoing data signals from the serdes, the outgoing data signals  
 comprising a plurality of electrical signals.

32 (currently amended): The logic of Claim 28, Logic for converting data signals, the logic  
 embodied in a computer-readable medium and operable to:

determine whether a coupled interface converter paddle coupled to a serdes  
 comprises a first interface converter paddle or a second interface converter paddle, the first  
 interface converter paddle associated with a first communication protocol, the second  
 interface converter paddle associated with a second communication protocol; wherein the  
 logic is further operable to hot-plug a high speed coupler of the coupled interface converter  
 paddle to the serdes[.];

identify the communication protocol associated with the coupled interface converter  
 paddle;

receive a plurality of data signals from the coupled interface converter paddle; and  
 deserialize the data signals according to the identified communication protocol.

33 (original): The logic of Claim 28, wherein the logic is further operable to adjust a speed of  
 the data signals to a generic speed.

34 (original): The logic of Claim 28, wherein the logic is further operable to:  
 determine the identified communication protocol using a board surface controller; and  
 transmit an instruction from the board surface controller to the serdes to process the  
 data signals according to the identified communication protocol.

35 (original): The logic of Claim 28, wherein the logic is further operable to indicate a status  
 of the data signals.

Attorney Docket No. 233-593-USP

36 (original): The logic of Claim 28, wherein the logic is further operable to transmit the data signals to a line card, the serdes disposed outwardly from the line card.

37 (original): A system for converting data signals, comprising:

means for determining whether a coupled interface converter paddle coupled to a serdes comprises a first interface converter paddle or a second interface converter paddle, the first interface converter paddle associated with a first communication protocol, the second interface converter paddle associated with a second communication protocol;

means for identifying the communication protocol associated with the coupled interface converter paddle;

means for receiving a plurality of data signals from the coupled interface converter paddle; and

means for deserializing the data signals according to the identified communication protocol.

38 (original): A system for converting data signals, comprising:

a first interface converter paddle associated with a first communication protocol;

a second interface converter paddle associated with a second communication protocol;

a physical layer card operable to:

determine whether a coupled interface converter paddle coupled to the physical layer card comprises the first interface converter paddle or the second interface converter paddle;

identify the communication protocol associated with the coupled interface converter paddle;

receive a plurality of data signals from the coupled interface converter paddle, the data signals being serialized;

deserialize the data signals according to the identified communication protocol;

adjust a speed of the data signals to a generic speed;

transmit the data signals to a line card, the physical layer card disposed outwardly from the line card;

receive a plurality of outgoing data signals from the line card; and

serialize the outgoing data signals according to the identified communication protocol; and



Attorney Docket No. 233-593-USP

a status indicator operable to indicate a status of the data signals, the coupled interface converter paddle comprising a transceiver operable to:

- transform the data signals from an optical form to an electrical form;
- transmit the data signals to the physical layer card;
- receive a plurality of outgoing data signals from the physical layer card; and
- transform the outgoing data signals from an electrical form to an optical form,

the line card comprising a board surface controller operable to:

- determine the identified communication protocol; and
- instruct the physical layer card to process the data signals according to the identified communication protocol.

39 (original): A system for converting data signals, comprising:

- a first interface converter paddle associated with a first communication protocol;
- a second interface converter paddle associated with a second communication protocol;
- a physical layer card operable to:
  - determine whether a coupled interface converter paddle coupled to the physical layer card comprises the first interface converter paddle or the second interface converter paddle;
  - identify the communication protocol associated with the coupled interface converter paddle;
  - receive a plurality of first data signals from the coupled interface converter paddle, the data signals being serialized;
  - deserialize the first data signals according to the identified communication protocol; and
  - transmit the first data signals to a line card coupled to the physical layer card;
- and
- a third interface converter paddle associated with a third communication protocol and operable to:
  - receive a plurality of second data signals;
  - deserialize the second data signals according to the third communication protocol; and
  - transmit the second data signals to the line card, the line card coupled to the third interface converter paddle.

Attorney Docket No. 233-593-USP

40 (original): The system of Claim 39, wherein the physical layer card is operable to:  
 receive a plurality of outgoing data signals from the line card; and  
 serialize the outgoing data signals according to the identified communication  
 protocol.

41 (original): The system of Claim 39, wherein the coupled interface converter paddle  
 comprises a transceiver operable to:  
 transform the first data signals from an optical form to an electrical form;  
 transmit the first data signals to the physical layer card;  
 receive a plurality of outgoing data signals from the physical layer card; and  
 transform the outgoing data signals from an electrical form to an optical form.

42 (original): The system of Claim 39, wherein the coupled interface converter paddle  
 comprises a transceiver operable to:  
 transmit the first data signals to the serdes, the first data signals comprising a  
 plurality of electrical signals; and  
 receive a plurality of outgoing data signals from the serdes, the outgoing data signals  
 comprising a plurality of electrical signals.

43 (original): The system of Claim 39, wherein the coupled interface converter paddle  
 comprises a high speed coupler operable to be hot-plugged to the serdes.

44 (original): The system of Claim 39, wherein the third interface converter paddle  
 comprises a transceiver operable to:  
 transform the second data signals from an optical form to an electrical form;  
 transmit the second data signals to the physical layer card;  
 receive a plurality of outgoing data signals from the physical layer card; and  
 transform the outgoing data signals from an electrical form to an optical form.

45 (original): The system of Claim 39, wherein the third interface converter paddle  
 comprises a transceiver operable to:  
 transmit the second data signals to the serdes, the second data signals comprising a  
 plurality of electrical signals; and  
 receive a plurality of outgoing data signals from the serdes, the outgoing data signals  
 comprising a plurality of electrical signals.

Attorney Docket No. 233-593-USP

46 (original): The system of Claim 39, wherein the third interface converter paddle comprises a high speed coupler operable to be hot-plugged to the serdes.